

10/582982

56

AP3 Rec'd PCT/PTO 15 JUN 2006

## SEQUENCE LISTING

<110> SHIPMAN, Robert C.  
LEE, David K. H.

<120> MATERIALS AND METHODS FOR ANALYSIS OF ATP-BINDING CASSETTE  
TRANSPORTER GENE EXPRESSION

<140>  
<141>

<130> 13516-4

<150> US 60/529,082  
<151> 2003-12-15

<160> 141

<170> PatentIn version 3.3

<210> 1  
<211> 598  
<212> DNA  
<213> Homo sapiens

<400> 1  
ccctgtggaa tgtacctatg tgagtttcag aaattctcaa aatacgtgtt caaaaatttc 60  
tgcttttgca tctttgggac acctcagaaa acttattaac aactgtgaat atgagaaata 120  
cagaagaaaa taataagccc tctatacata aatgcccagc acaattcatt gttaaaaaac 180  
aaccaaacct cacactactg tatttcatta tctgtactga aagcaaagtc tttgtgacta 240  
ttaaatgttg cacatcattc attcactgta tagtaatcat tgactaaagc catttgctctg 300  
tgttttcttc ttgtggttgt atatatcagg taaaatattt tccaaagagc catgtgtcat 360  
gtaataactga accactttga tattgagaca ttaatttgta cccttgttat tatctactag 420  
taataatgta atactgtaga aatattgctc taattctttt caaaattggt gcatccccct 480  
tagaatgttt ctatttccat aaggatttag gtatgctatt atcccttctt ataccctaag 540  
atgaagctgt ttttgctgctc tttgttcac c attggccctc attccaagca ctttacgc 598

<210> 2  
<211> 568  
<212> DNA  
<213> Homo sapiens

<400> 2  
ccttcaacac ggacacgctc tgctgaccac ccagagctgg gccagggagg acacgctcca 60  
ctgaccaccc agagctgggc cagggactca acaatgggga cagaagtccc ccagtgcctg 120  
ccagggcctg gagtggaggt tcaggaccaa ggggcttctg gtcctccagc ccctgtactc 180  
ggccatgccc tgcggtcact gcggttgccg cccctaattg tgccaaaggc tgaccgggcc 240

cgggctgcgt acacccttgc cctgctttgc cttaaagcct cggggtctgc ccggcccctc	300
gcccctgcct ggcactgctc accgcccag gcgacgccgg ctggaccagg cactgctggc	360
ctttctcctg cccggcctcg gaaccagctt ttctctctta cgatgaaggc tgatgccgag	420
agcgggctgt gggcggagct gggtcagtc cgtatttatt ttgctttgag aagaggctcc	480
tctggccctg ctctcctgca gggaggtggc tgtcccgcg gaagccatca gcttgggcca	540
gctggcaggt ggcaggaatg gagaagct	568

<210> 3  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 3	
aagggaaagt acggcgtgga cgactactcc gtgagccaga tctcgctgga acaggtcttc	60
ctgagcttcg cccacctgca gccgcccacc gcagaggagg ggcgatgagg ggtggcggct	120
gtctcgccat caggcagga caggacgggc aagcagggcc catcttacat cctctctctc	180
caagtttatc tcatccttta tttttaatca cttttttcta tgatggatat gaaaaattca	240
aggcagtatg cacagaatgg acgagtgcag cccagccctc atgcccagga tcagcatgcg	300
catctccatg tctgcatact ctggagttca ctttcccaga gctggggcag gccgggcagt	360
ctgcgggcaa gctccggggt ctctgggtgg agagctgacc caggaagggc tgcagctgag	420
ctgggggttg aatttctcca ggcactccct ggagagagga cccagtgact tgtccaagtt	480
tacacacgac actaatctcc cctggggagg aagcgggaag ccagccaggt tgaactgtag	540
cgaggccccc aggccgccag gaatggacca tgcagatcac tgtcagtgga gggaaagctgc	600
tgactgtgat taggtgctgg ggtcttag	628

<210> 4  
 <211> 745  
 <212> DNA  
 <213> Homo sapiens

<400> 4	
gagcatcatc agaaaagga gggctgtggt cctcacatcc cacagcatgg aagaatgtga	60
ggcactgtgt acccggtgg ccatcatggt aaagggcgcc ttctgatgta tgggcaccat	120
tcagcatctc aagtccaaat ttggagatgg ctatatcgtc acaatgaaga tcaaattccc	180
gaaggacgac ctgcttcctg acctgaacct tgtggagcag ttcttccagg ggaacttccc	240
aggcagtgtg cagagggaga ggcactacaa catgctccag ttccaggtct cctcctcctc	300
cctggcgagg atcttccagc tcctcctctc ccacaaggac agcctgctca tcgaggagta	360
ctcagtcaca cagaccacac tggaccaggt gtttgtaaatt ttgctaaac agcagactga	420

```

aagtcattgac ctccctctgc accctcgagc tgctggagcc agtcgacaag cccaggactg 480
atcttttcaca ccgctcgttc ctgcagccag aaaggaactc tgggcagctg gaggcgcagg 540
agcctgtgcc catatggtca tccaaatgga ctggcccagc gtaaattgacc ccactgcagc 600
agaaaacaaa cacacgagga gcatgcagcg aattcagaaa gaggtctttc agaaggaaac 660
cgaaaactgac ttgctcacct ggaacacctg atggtgaaac caaacaata caaatcctt 720
ctccagaccc cagaactaga aaccc 745

```

```

<210> 5
<211> 772
<212> DNA
<213> Homo sapiens

```

```

<400> 5
aatgcaagcc gtcaggaaag tttttcttct attttggtt ataaaattcc taaggaagat 60
gttcagtccc tttcacaatc tttttttaag ctggaagaag ctaaactatgc ttttgccatt 120
gaagaatata gcttttctca agcaacattg gaacagggtt ttgtagaact cactaaagaa 180
caagaggagg aagataatag ttgtggaact ttaaactgca cactttggtg ggaacgaaca 240
caagaagata gagtagtatt ttgaatttgt attgttcggt ctgcttactg ggacttcttt 300
ctttttcact taattttaac tttggtttaa aaagtttttt attggaatgg taactggaga 360
accaagaacg cacttgaaat ttttctaagc tccttaattg aaatgctgtg gttgtgtgtt 420
ttgcttttct ttaaataaaa cgtatgtata attaagtga gctgcatgtt tgtattgaag 480
tatattgaac tatatagttt gtatgtcatc tttttcacca ttcagaaaca gtgcttctga 540
atattgtgatt taaaggaatt gtaatagaat agttttatatt ttaagttatc ttttaagttt 600
tgccatcttc ttaaataagt acgtaatgtt ccaatctaaa taaaaaacta atacataact 660
aatgcataga aaagatacat aaagcaatgt gaaagtttct tgcttctcct ttttaatttc 720
taaaaaagcc actttgaatg gaagttgtca tccgtaaaag ctgaagtgtg ag 772

```

```

<210> 6
<211> 831
<212> DNA
<213> Homo sapiens

```

```

<400> 6
agttgtgttt tgtgctgagc ctcttgggaa actcacctgt cttgctcctg gatgaaccat 60
ctacgggcat agaccccaca gggcagcagc aaatgtggca ggcaatccag gcagtcgtta 120
aaaacacaga gagaggtgtc ctcttgacca ccataacct ggctgaggcg gaagccttgt 180
gtgaccgtgt ggccatcatg gtgtctggaa ggcttagatg cattggctcc atccaacacc 240

```

```

tgaaaaacaa acttggcaag gattacattc tagagctaaa agtgaaggaa acgtctcaag 300
tgacttttggc ccacactgag attctgaagc ttttcccaca ggctgcaggg caggaaaggt 360
attcctctttt gttaacctat aagctgcccg tggcagacgt ttaccctcta tcacagacct 420
ttcacaaatt agaagcagtg aagcataact ttaacctgga agaatacagc ctttctcagt 480
gcacactgga gaaggtattc ttagagcttt ctaaagaaca ggaagtagga aattttgatg 540
aagaaattga tacaacaatg agatggaaac tcctccctca ttcagatgaa ccttaaaacc 600
tcaaacctag taattttttg ttgatctcct ataaacttat gttttatgta ataattaata 660
gtatgtttta ttttaaagat cattttaaata taacatcagg tatattttgt aaatttagtt 720
aacaaatata taaattttta aattattctt cctctcaaac ataggggtga tagcaaacct 780
gtgataaagg caatacaaaa tattagtaaa gtcacccaaa gagtcaggca c 831

```

```

<210> 7
<211> 641
<212> DNA
<213> Homo sapiens

```

```

<400> 7
atagcatgga ggagtgtgaa gcgctctgct cgcgcctagc catcatgggt aatgggcggg 60
tccgctgcct gggcagcccg caacatctca agggcagatt cgcggcgggt cacacactga 120
ccctgcgggt gcccgccgca aggtcccagc cggcagcggc cttcgtggcg gccgagttcc 180
ctgggtcgga gctgcgcgag gcacatggag gccgcctgcy cttccagctg ccgccgggag 240
ggcgctgcgc cctggcgcgc gtcttttgag agctggcggg gcacggcgca gagcacggcg 300
tgaggagact ttccgtgagc cagacgatgc tggaggaggt attcttgtag ttctccaagg 360
accaggggaa ggacgaggac accgaagagc agaaggaggc aggagtggga gtggaccccg 420
cgccaggcct gcagcacccc aaacgcgtca gccagttcct cgatgaccct agcactgccg 480
agactgtgct ctgagcctcc ctcccctgcy gggccgcggg gaggccctgg gaatggcaag 540
ggcaaggtag agtgcctagg agccctggac tcaggctggc agaggggctg gtgcctgga 600
gaaaataaag agaaggctgg agagaagccg tggtggtgaa a 641

```

```

<210> 8
<211> 707
<212> DNA
<213> Homo sapiens

```

```

<400> 8
gctgggtgat tttgaggagg attttgatcc ctcaagtgaag tggaagctcc tccccagga 60
agagccttaa aaccccaaat tctgtgttcc tgtttaaacc cgtgggtttt tttaaatata 120
tttattttta tagcagcaat gttctatttt tagaaactat attataagta cagaaatggg 180

```

tctccgtgtg	gtgggaggag	gaggttcggg	tgctgggtaa	gtgccatgtc	agtgtggaca	240
gaggcatttg	actaagccaa	cctcctctca	cagcctctgt	atctctgcag	gccatactgg	300
ttccattggt	ctgtataata	ctgaataaat	aaatttactt	ttacatgatc	gtataagttt	360
ctagataaga	taaacaaatt	ctgttttaaat	ttttttaata	aaaatcttaa	aacacttttt	420
ttctaacct	gactgagaaa	ttcatgttta	cttttctagg	tgtatgatac	tttgtaaagt	480
tgatactttc	ctaagaattt	aacatgtcat	atttttgaaa	tagatttaag	tgtgcttctt	540
attgctaaaa	atactaaatg	tcatgggtca	tagtatctga	tatcaatatc	gttgataaca	600
tatccacagg	taacaccatg	atgtaggcat	aaatggaaaa	caaaaaccct	actatttcaa	660
atatattgta	cttttttatt	tctgtaagcc	aactgtgtgc	cattttc		707

<210> 9  
 <211> 722  
 <212> DNA  
 <213> Homo sapiens

<400> 9	
tgtgccagca	accaaattccc atgtttccta ctgtgttaag tttaaaaatg cattttattat 60
agaattgtct	acattttctga ggatgtcatg gagaatgctt aattttcttt ctctgaactt 120
caaaatatta	aatattttct tatttttttg attaaagtat aaattaagac accctattga 180
cttccgggta	aggggagtc attgattacc cagcagcaca gtatttgctt ttataattc 240
ccttttttaa	tacttgttct taattgactg gttttccttt tctgtcattt ttcagagttt 300
agattgtgag	tccatgtttt gtctgttgtg cctataaagg aaatttgaaa tctgtatcat 360
totactataa	agacacatgc acacgtatgt ttattgcagc actgtttaca atagcaaaga 420
cttggaacca	acaaaatac ccacaaatga tagaccggat aaagaaaacg tgacacatat 480
acaccatgga	atactatgca gccatagaaa aggatgagtt catattcttc acagggacat 540
ggatgaagct	ggaaaccatc atcctcagca aactaacaca ggaacagaaa accaaacacc 600
gcatgttctc	actcataagt gggaattgaa caatgagaat acatggacac agggagggga 660
acaccacacc	ctggggcctg ttggggggat gggggctagg ggagggatag cattaggaga 720
aa	722

<210> 10  
 <211> 523  
 <212> DNA  
 <213> Homo sapiens

<400> 10	
aggagctggg	aatgttgat gataaaattg atacaacagt tgaatggaaa cttctccac 60

aggaagaccc ttaaaatgaa gaacctccta acattcaatt ttaggtccta ctacattggt 120  
 agttttccata attctacaag aatgttttct tttacttcag ttaacaaaag aaaacattta 180  
 ataaacattc aataatgatt acagttttca tttttaaaaa ttaggatga aggaacaag 240  
 gaaatatagg gaaaagtagt agacaaaatt aacaaaatca gacatgttat tcatccccaa 300  
 catgggtcta ttttgtgctt aaaaataatt taaaaatcat acaatattag gttgggtttc 360  
 gggtattatc aataaagcta aactgagaa cattttacaa ataaaaatat gagtttttta 420  
 gcctgaactt caaatgtatc agctatTTTT aaacattatt tactcggatt ctaatttaat 480  
 gtgacattga ctataagaag gtctgataaa ctgatgaaat ggc 523

<210> 11  
 <211> 764  
 <212> DNA  
 <213> Homo sapiens

<400> 11  
 cctgctggag agtggttttg gcttcttggg gtgaatggag caggaaagac cactatatcc 60  
 aagatgctga caggagacat cattccttca agtggaaca ttctgatcag aaataagacc 120  
 ggatctctgg gtcacgttga ttctcacagc tcattagttg gctactgtcc tcaggaagat 180  
 gccttagatg acctggtaac tgtggaagaa catttgtatt tctatgccag ggtacatgga 240  
 attccagaaa aggatattaa agaaactgtt cataaactcc ttaggagact tcacctgatg 300  
 cccttcaagg acagagctac ctctatgtgc agttatggca caaaaagaaa attatccact 360  
 gcaactggcct tgatagggaa accttccatt ctactgctgg atgagccgag ctctggcatg 420  
 gatccgaagt cgaaacggca cctctggaag atcatttcag aagaagtaca gaacaaatgt 480  
 tccgtcatcc tcacatctca cagcatggaa gaatgtgaag ctctctgtac caggttggcc 540  
 attatgggtga atggaaagtt tcaatgtatt ggatctttgc agcacataaa gagcaggttt 600  
 ggacgaggat ttactgtcaa agttcacttg aagaataaca aagtgaccat ggagaccctc 660  
 acaaagttca tgcagctgca ctttccaaaa acatacttaa aagatcagca cctcagcatg 720  
 ctagagtatc atgtaccagt cacagcagga ggagtcgcaa acat 764

<210> 12  
 <211> 790  
 <212> DNA  
 <213> Homo sapiens

<400> 12  
 catcctgttt gactgcagca ttgctgagaa cattgcctat ggagacaaca gccgggtggg 60  
 gtcacaggaa gagattgtga gggcagcaaa ggaggccaac atacatgcct tcatcgagtc 120  
 actgcctaataaatatagca cttaaagtagg agacaaagga actcagctct ctggtggcca 180

gaaacaacgc attgccatag ctcggtgccct tggttagacag cctcatatatt tgcttttggga 240  
 tgaagccacg tcagctctgg atacagaaag tgaaaagggt gtccaagaag ccctggacaa 300  
 agccagagaa ggccgcacct gcattgtgat tgctcaccgc ctgtccacca tccagaatgc 360  
 agacttaata gtggtgtttc agaatggcag agtcaaggag catggcacgc atcagcagct 420  
 gctggcacag aaaggcatct atttttcaat ggtcagtgtc caggctggaa caaagcgcca 480  
 gtgaactctg actgtatgag atgttaaata ctttttaata tttgtttaga tatgacattt 540  
 attcaaagt aaagcaaac acttacagaa ttatgaagag gtatctgttt aacatttcct 600  
 cagtcaagtt cagagtcttc agagacttcg taattaaagg aacagagtga gagacatcat 660  
 caagtggaga gaaatcatag tttaaactgc attataaatt ttataacaga attaaagtag 720  
 atttttaaag ataaaatgtg taattttgtt tatattttcc catttggact gtaactgact 780  
 gccttgctaa 790

<210> 13  
 <211> 709  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
 atattgccta tggcctgacc cagaagccaa ctatggagga aatcacagct gctgcagtaa 60  
 agtctggggc ccatagtttc atctctggac tccctcaggg ctatgacaca gaggtagacg 120  
 aggctgggag ccagctgtca gggggtcagc gacaggcagt ggcgttggcc cgagcattga 180  
 tccggaaacc gtgtgtactt atcctggatg atgccaccag tgccctggat gcaaacagcc 240  
 agttacaggt ggagcagctc ctgtacgaaa gccctgagcg gtactcccgc tcagtgottc 300  
 tcatcaccca gcacctcagc ctggtggagc aggctgacca catcctcttt ctggaaggag 360  
 gcgctatccg ggagggggga acccaccagc agctcatgga gaaaaagggg tgctactggg 420  
 ccatggtgca ggctcctgca gatgctccag aatgaaagcc ttctcagacc tgcgcactcc 480  
 atctccctcc cttttcttct ctctgtggtg gagaaccaca gctgcagagt agcagctgcc 540  
 tccaggatga gttacttgaa atttgccttg agtgtgttac ctctttcca agctcctcgt 600  
 gataatgcag acttcctgga gtacaaacac aggatttgta attcctactg taacggagtt 660  
 tagagccagg gctgatgctt tgggtgtggc agcactctga aactgagaa 709

<210> 14  
 <211> 817  
 <212> DNA  
 <213> Homo sapiens

<400> 14

```

gggagtagga gctatgctaa gtgtttttca tgtattatcg tttttaatca ttatccccaa      60
ccctatgagg ttggttatta tccccatttt acagatgagg aaactgaagc tcaaagaggg      120
tcaatgactt tccaagggtg gtcgtagtgg tggagttgga gtttgaacac aggcctgacc      180
ctagagtcca caccctgacc caatcaatta tattgcatct tgggtccata aaccctaata      240
cataatccca tcaagaaaag ctctgctgct cttagctcta aataattcag aatctattct      300
cttctctcca gtcccgttgt tatagtcttc actcatagac ttaagatgat cccatcacca      360
gagaggtttc tctaccatta gcttccctct tccggccatt cttcaciaag tcatttttct      420
aaattctgtg tcacatacga tgatggcatt tctggaaatt ccttcagggtg ctctcaagcc      480
ctgctgcaga gatccttttc agagcacaca ctgttccagc ccatctgtct caccctctcc      540
tgttgatatc agctccacga caaactttct gccttcccca acacctttgt gcctttgcat      600
atggtgtttt cttgccatt ttctgctcga ctgcccctg attttcaagt tcaagactta      660
actcaggggt caggtcttcc aggaggcctt acttatgtcg tcagtctggg gaactctcca      720
tgtgcttcta tcaactgtcg gttacctctt tcacagccct tttaaagttc tatcttccct      780
ttcccacctt ttttgacctt ccactagacc atgagca                                  817

```

```

<210> 15
<211> 790
<212> DNA
<213> Homo sapiens

```

```

<400> 15
ttgacagcta cagtgaagag gggctgaagc ctgataaatt tgaaggaaat ataacattta      60
atgaagtcgt gttcaactat cccacccgag caaacgtgcc agtgcttcag gggctgagcc      120
tggaggtgaa gaaaggccag aactagccc tgggtggcag cagtggctgt ggggaagagca      180
cggtggtcca gctcctggag cggttctacg accccttggc ggggacagtg cttctcgatg      240
gtcaagaagc aaagaaactc aatgtccagt ggctcagagc tcaactcgga atcgtgtctc      300
aggagcctat cctatttgac tgcagcattg ccgagaatat tgcctatgga gacaacagcc      360
gggttgatc acaggatgaa attgtgagtg cagccaaagc tgccaacata catcctttca      420
tcgagacgtt accccacaaa tatgaaacaa gagtgggaga taaggggact cagctctcag      480
gaggtcaaaa acagaggatt gctattgccc gagccctcat cagacaacct caaatcctcc      540
tgttgatga agctacatca gctctggata ctgaaagtga aaaggttgtc caagaagccc      600
tgacaaaagc cagagaaggc cgcacctgca ttgtgattgc tcaccgcctg tccaccatcc      660
agaatgcaga cttaatagtg gtgtttcaga atgggagagt caaggagcat ggcacgcac      720
agcagctgct ggcacagaaa ggcatctatt tttcaatggg cagtgtccag gctgggacac      780

```



agaacttatg

790

<210> 16  
 <211> 705  
 <212> DNA  
 <213> Homo sapiens

<400> 16  
 ttcgcttcta cgacatcagc tctggctgca tccgaataga tgggcaggac atttcacagg 60  
 tgacccaggc ctctctccgg tctcacattg gagttgtgcc ccaagacact gtcctcttta 120  
 atgacaccat cgccgacaat atccgttacg gccgtgtcac agctgggaat gatgaggtgg 180  
 aggctgctgc tcaggctgca ggcatccatg atgccattat ggctttccct gaaggggtaca 240  
 ggacacaggt gggcgagcgg ggactgaagc tgagcggcgg ggagaagcag cgcgtcgcca 300  
 ttgcccgcac catcctcaag gctccgggca tcattctgct ggatgaggca acgtcagcgc 360  
 tggatacatc taatgagagg gccatccagg cttctctggc caaagtctgt gccaacgcga 420  
 ccaccatcgt agtggcacac aggtctctcaa ctgtgggtcaa tgctgaccag atcctcgtca 480  
 tcaaggatgg ctgcatcgtg gagagggggac gacacgaggc tctgttgtcc cgaggtgggg 540  
 tgtatgctga catgtggcag ctgcagcagg gacaggaaga aacctctgaa gacactaagc 600  
 ctcagaccat ggaacggtga caaaagtgtg gccacttccc tctcaaagac taaccagaa 660  
 gggaataaga tgtgtctcct ttccctggct tatttcatcc tggtc 705

<210> 17  
 <211> 776  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
 ccctgcagga aagaaagtgg ccattgtagg aggtagtggg tcagggaaaa gcacaatagt 60  
 gaggctatta tttcgcttct atgagcctca aaagggtagc atttatcttg ctggtcaaaa 120  
 tatacaagat gtgagcctgg aaagccttcg gagggcagtg ggagtggtag ctcaggatgc 180  
 tgtcctcttc cataatacta tttattacaa cctcttatat ggaaacatca gtgcttcacc 240  
 tgaggaagtg tatgcagtg gaaaattagc tggacttcat gatgcaattc ttcgaatgcc 300  
 acatggatat gacaccaag taggggaacg aggactcaag ctttcaggag gagaaaagca 360  
 aagagtagca attgcaagag ccattttgaa ggacccccca gtcatactct acgatgaagc 420  
 tacttcatcg ttagattcga ttactgaaga gactattctt ggtgccatga aggatgtggg 480  
 caaacacaga acttctatct tcattgcaca cagattgtca acagtgggtg atgcagatga 540  
 aatcattgtc ttggatcagg gtaaggtagc cgaacgtggg acccaccatg gtttgcttgc 600  
 taaccctcat agtatctatt cagaaatgtg gcatacacag agcagccgtg tgcagaacca 660

tgataacccc aaatgggaag caaagaaaga aaatatatcc aaagaggagg aaagaaagaa 720  
 actacaagaa gaaattgtca atagtgtgaa aggctgtgga aactgttcgt gctaag 776

<210> 18  
 <211> 702  
 <212> DNA  
 <213> Homo sapiens

<400> 18  
 aggttgtcgg tttcatcagc caggagcccg tcctgtttgg gacgaccatc atggaaaaca 60  
 tccgctttgg gaagctggaa gcttccgatg aagagggtga cacagccgcc cgggaagcga 120  
 atgctcacga gttcatcacc agtttccccg agggtacaa cacggtcgtc ggtgaacggg 180  
 gcactaccct gtctgggggc cagaagcagc gcctggccat cgcccagacc cttatcaagc 240  
 agcccacggg gctgatactg gatgaagcta ccagcgcgct ggatgcagag tccgagcggg 300  
 ttgtacagga ggccctggac cggggccagt caggccgcac ggtgctggta attgcccacc 360  
 ggctcagcac tgtccgtggg gcccaactgca ttgtcgtcat ggccgatggc cgtgtctggg 420  
 aggctgggac acatgaagag ctctgaaga aaggcgggct atacgccgag ctcatccgga 480  
 ggcaggccct ggatgccccg aggacagcgg cccaccgcc caaaaagcca gaaggcccca 540  
 ggagccacca gcacaagtcc tgagaagggc cccctgaggt gtggtcgctg ccaagcatca 600  
 gtgttagggc tggggctcag cctgggggag cctactgggg actgagcccc caggagggcc 660  
 agcatgtgga gagtcgctgc ggctgctcct gtcacaata aa 702

<210> 19  
 <211> 706  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
 tggatcaccg cttcctgcat cttgcccctg gtccctgccc cattcccagg gcactcctta 60  
 cccctgctgc cctgagccaa cgccttcacg gacctcccta gcctcctaag caaaggtaga 120  
 gctgcctttt taaacctagg tcttaccagg gtttttactg tttggtttga ggcaccccag 180  
 tcaactccta gatttcaaaa acctttttct aattgggagt aatggcgggc actttcacca 240  
 agatgttcta gaaacttctg agccaggagt gaatggccct tccttagtag cctgggggat 300  
 gtccagagac taggcctctc ccctttaccc ctccagagaa ggggcttccc tgtcccggag 360  
 ggacacgggg aacgggattt tccgtctctc cctcttgcca gctctgtgag tctggccagg 420  
 gcgggtaggg agcgtggagg gcatctgtct gccatcgccc gctgccaatc taagccagtc 480  
 tcactgtgaa ccacacgaaa cctcaactgg gggagtgagg ggctggccag gtctggaggg 540

gcctcagggg tgcccagccc ggcacccagc gctttcgccc ctggtccacc caccctggc 600  
 tggcagcctc cctccccaca ccgcccctg tgctctgctg tctggaggcc acgtggatgt 660  
 tcatgagatg cattctcttc tgtctttggt ggatgggatg gtggca 706

<210> 20  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

<400> 20  
 gcaaggcatg aactgctagg tattattaag aatgaatgat ttttgcattt aagttgtttg 60  
 aaggcatgta ttttgaaaaa tatctgttac aaatttataa tttcaagaca aattgaatct 120  
 tattttataa tacttttgga atttcattaa taaggctaaa atttgaggaa tataactaat 180  
 tttcagcctt aagacattta agtttggaag tccttgctat tcaacagaat aacaagaaaa 240  
 cttcagaatg tatcactctc ctgaaaagaa gatattaata agccctttta tttatggtta 300  
 tagttttatt tatagtctca aaattcctaa agcaatgcta caaccattga atttgccata 360  
 ttttgatatca gtgctgttaa tttgctgttg cctcaagaaa aagtgtttt tctccatgga 420  
 tgaggctaga ccctaagaag taattaagtc aatgtaaadc aaatggaagt tttcccatga 480  
 actaagaatt tattagttcc ctgattagac tggaagaaga aaccactatt tcatgaaa 538

<210> 21  
 <211> 753  
 <212> DNA  
 <213> Homo sapiens

<400> 21  
 ttgtcattgc ccatcgcttg tccaccatcc agaacgcgga tatcattgct gtcattggcac 60  
 agggggtggt gattgaaaag gggacccatg aagaactgat ggcccaaaaa ggagcctact 120  
 acaaactagt caccactgga tcccccatca gttgacccaa tgcaagaatc tcagacacac 180  
 atgacgcacc agttacaggg gttgttttta aagaaaaaaa caatcccagc aggagggatt 240  
 gctgggattg ttttttcttt aaagaagaat gttaatatct tactttttaca gtcattttcc 300  
 tacatcgga tccaagctaa tttctaattg ccttccataa taattctgct ttagatgtgt 360  
 atacagaaaa tgaaagaaac taggggtccat atgagggaaa acccaatgtc aagtggcagc 420  
 tcagccacca ctcagtgtt ctctgtgcag gagccagtcc tgattaatat gtgggaatta 480  
 gtgagacatc aggagtaag tgacactttg aactcctcaa gggcagagaa ctgtctttca 540  
 tttttgaacc ctcggtgtac acagaggcgg gtctataaca ggcaatcaac aaacgtttct 600  
 tgagctagac caaggtcaga tttgaaaaga acagaaggac tgaagaccag ctgtgtttct 660  
 taactaaatt tgtctttcaa gtgaaaccag cttccttcat ctctaaggct aaggataggg 720

aaaggggtgga tgctctcagg ctgagggagg cag

753

<210> 22  
 <211> 660  
 <212> DNA  
 <213> Homo sapiens

<400> 22  
 gctcccatca cctctaacat ccttgtcttg gtctaccagg aacgcttcat ttccttgggg 60  
 ctgcagtttt gtggttgagg ggccctggaga aaatcatttt ctccccttgg cagtgtccca 120  
 gggccctgga tggctctctt accaacaatct ggtcttccag gactcaaaa gctgggaacc 180  
 agcatctcag cgccagctct accagttctc gttttggggc agaggcagcc tctgcaactcc 240  
 cacgcctgtc ctccctggaag ggacctggtt ggactaacgg ctaacctgga cctggaactg 300  
 tagggccagg ggattgtctc agggccgacg ttccacctgg ggcttccctc cccacccacc 360  
 ccgactccag gctttccctt ttttcttttg ttcaacattg taagaacaat caatgctggt 420  
 attactgatc ccaccatgat tgatgtgggg taaatattaa ggagatggcc tcatgggaat 480  
 ttgaccttga ctagaaatag agactgagag tgagcaacca gctggaaggt actatgccag 540  
 tcctagcaga aaaatgtggt aggggcctgg cccaaagcag tgttggttgc ttacagtgtt 600  
 gattgatttt gttctttttt cttaccacct cttttctttc cctctcatgg tacctgctca 660

<210> 23  
 <211> 810  
 <212> DNA  
 <213> Homo sapiens

<400> 23  
 gtagcatgga gaagattggt gtggtgggca ggacaggagc tggaaagtca tccctcacia 60  
 actgcctctt cagaatctta gaggctgccg gtggtcagat tatcattgat ggagtagata 120  
 ttgcttccat tgggctccac gacctccgag agaagctgac catcatcccc caggacccca 180  
 tcctgttctc tggaagcctg aggatgaatc tcgacccttt caacaactac tcagatgagg 240  
 agatttggaa ggccttggag ctggctcacc tcaagtcttt tgtggccagc ctgcaacttg 300  
 gggtatccca cgaagtgaca gaggctggtg gcaacctgag cataggccag aggcagctgc 360  
 tgtgcctggg cagggctctg cttcggaat ccaagatcct ggtcctggat gagggcactg 420  
 ctgcggtgga tctagagaca gacaacctca ttcagacgac catccaaaac gagttcgccc 480  
 actgcacagt gatcaccatc gccacaggc tgcacaccat catggacagt gacaaggtaa 540  
 tggtcctaga caacgggaag attatagagt gcggcagccc tgaagaactg ctacaaatcc 600  
 ctggaccctt ttactttatg gctaaggaag ctggcattga gaatgtgaac agcacaaaat 660

tctagcagaa ggcccatgg gttagaaaag gactataaga ataatttctt atttaatttt 720  
 attttttata aaatacagaa tacatacaaa agtgtgtata aaatgtacgt tttaaaaaag 780  
 gataagtga caccatgaa cctactaccc 810

<210> 24  
 <211> 722  
 <212> DNA  
 <213> Homo sapiens

<400> 24  
 caagagccgc atcctgggtt tagacgaggc cacagctgcc atcgacctgg agactgacaa 60  
 cctcatccag gctaccatcc gcaccagtt tgatacctgc actgtcctga ccatcgacaa 120  
 ccggcttaac actatcatgg actacaccag ggtcctggtc ctggacaaag gagtagtagc 180  
 tgaatttgat tctccagcca acctcattgc agctagaggc atcttctacg ggatggccag 240  
 agatgctgga cttgcctaaa atatattcct gagatttcct cctggccttt cctgggttttc 300  
 atcaggaagg aaatgacacc aaatatgtcc gcagaatgga cttgatagca aacactgggg 360  
 gcaccttaag attttgcacc tgtaaagtgc cttacagggt aactgtgctg aatgcttttag 420  
 atgaggaaat gatccccaag tggatgaatga cacgcctaag gtcacagcta gtttgagcca 480  
 gttagactag tccccgggc tcccgattcc caactgagtg ttatttgcac actgcactgt 540  
 tttcaaataa cgattttatg aaatgacctc tgtcctccct ctgatttttc atattttcct 600  
 aaagtttcgt ttctgttttt taataaaaag ctttttcctc ctggaacaga agacagctgc 660  
 tgggtcaggc caccctagg aactcagtcc tgtactctgg ggtgctgcct gaatccatta 720  
 aa 722

<210> 25  
 <211> 794  
 <212> DNA  
 <213> Homo sapiens

<400> 25  
 tgggaagaac cggagctgga aaaagttccc tcattctcagc cttttttaga ttgtcagaac 60  
 ccgaaggtaa aatttggtatt gataagatct tgacaactga aattggactt cacgatttaa 120  
 ggaagaaaat gtcaatcata cctcaggaa cttgtttgtt cactggaaca atgaggaaaa 180  
 acctggatcc ctttaaggag cacacggatg aggaactgtg gaatgcctta caagaggtag 240  
 aacttaaaga aaccattgaa gatcttcctg gtaaaatgga tactgaatta gcagaatcag 300  
 gatccaattt tagtggttga caaagacaac tgggtgtgcct tgccagggca attctcagga 360  
 aaaatcagat attgattatt gatgaagcga cggcaaatgt ggatccaaga actgatgagt 420  
 taatacaaaa aaaaatccgg gagaaatttg cccactgcac cgtgctaacc attgcacaca 480

gattgaacac cattattgac agcgacaaga taatggtttt agattcagga agactgaaag 540  
aatatgatga gccgtatggt ttgctgcaaa ataaagagag cctatttttac aagatgggtgc 600  
aacaactggg caaggcagaa gccgctgccc tctactgaaac agcaaaacag gtatacttca 660  
aaagaaatta tccacatatt ggtcacactg accacatgggt tacaacact tccaatggac 720  
agccctcgac cttaactatt ttcgagacag cactgtgaat ccaacaaaaa tgtcaagtcc 780  
gttccgaagg catt 794

<210> 26  
<211> 646  
<212> DNA  
<213> Homo sapiens

<400> 26  
aaggaagacg tgtggcaata gtggggccctc cgacagcccc ctctgccgcc tccccacagc 60  
cgctccaggg gtggctggag acgggtgggc ggctggagac catgcagagc gccgtgagtt 120  
ctcagggctc ctgcctttctg tcctgggtgc acttactgtt tctgtcagga gagcagcggg 180  
gcgaagccca ggcccccttt cactccctcc atcaagaatg gggatcacag agacattcct 240  
ccgagccggg gagttttctt cctgccttct tctttttgct gttgtttcta aacaagaatc 300  
agtctatcca cagagagtcc cactgcctca ggctcctatg gctggccact gcacagagct 360  
ctccagctcc aagacctgtt gggtccaagc cctggagcca actgctgctt tttgaggtgg 420  
cactttttca tttgcctatt cccacacctc cacagttcag tggcagggct caggatttcg 480  
tgggtctgtt ttcctttctc accgcagtcg tcgcacagtc tctctctctc tctccccctca 540  
aagtctgcaa cttaagcag ctcttgctaa tcagtgtctc acactggcgt agaagttttt 600  
gtactgtaaa gagacctacc tcaggttgct ggttgctgtg tggttt 646

<210> 27  
<211> 747  
<212> DNA  
<213> Homo sapiens

<400> 27  
tcgtgtcagt ggagcggatg caggactatg cctggacgcc caaggaggct ccctggaggc 60  
tgcccatatg tgcagctcag cccccctggc ctgaggcgcg gcagatcgag ttccgggact 120  
ttgggctaag ataccgacct gagctcccgc tggtgtgtca gggcgtgtcc ttcaagatcc 180  
acgcaggaga gaaggtgggc atcgttggca ggaccggggc aggggaagtcc tccctggcca 240  
gtgggtgct gcggctccag gaggcagctg aggggtgggat ctggatcgac ggggtcccca 300  
ttgcccacgt ggggctgcac aactgcgct ccaggatcag catcatcccc caggacccca 360

tcctgttccc	tggctctctg	cggatgaacc	tcgacctgct	gcaggagcac	tcggacgagg	420
ctatctgggc	agccctggag	acggtgcagc	tcaaagcctt	ggtggccagc	ctgcccggcc	480
agctgcagta	caagtgtgct	gaccgaggcg	aggacctgag	cgtgggccag	aaacagctcc	540
tgtgtctggc	acgtgccctt	ctccggaaga	cccagatcct	catcctggac	gaggctactg	600
ctgccgtgga	ccctggcacg	gagctgcaga	tgcaggccat	gctcgggagc	tggtttgcac	660
agtgcactgt	gctgctcatt	gcccaccgcc	tgcgctccgt	gatggactgt	gcccgggttc	720
tggtcatgga	caaggggcag	gtggcag				747

<210> 28  
 <211> 748  
 <212> DNA  
 <213> Homo sapiens

<400> 28	
tctttcacag	gggacaggat ggttcccttg atgaagaagt tgatatgcct tttcccaact 60
ccagaaagtg	acaagctcac agaccttga actagagttt agctggaaaa gtatgttagt 120
gcaaattgtc	acaggacagc ccttctttcc acagaagctc caggtagagg gtgtgtaagt 180
agataggcca	tgggcactgt gggtagacac acatgaagtc caagcattta gatgtatagg 240
ttgatgggtg	tatgttttca ggctagatgt atgtacttca tgctgtctac actaagagag 300
aatgagagac	acactgaaga agcaccaatc atgaattagt tttatatgct tctgttttat 360
aattttgtga	agcaaaatth tttctctagg aaatatttat ttttaataatg tttcaaacat 420
atattacaat	gctgtatttt aaaagaatga ttatgaatta catttgtata aaataatttt 480
tatatttgaa	atattgactt tttatggcac tagtattttt atgaaatatt atgttaaaac 540
tgggacaggg	gagaacctag ggtgatatta accaggggcc atgaatcacc ttttggtctg 600
gaggggaagc	ttggggctga togagttgtt gccacagct gtatgattcc cagccagaca 660
cagcctctta	gatgcagttc tgaagaagat ggtaccacca gtctgactgt ttccatcaag 720
ggtacactgc	cttctcaact ccaaactg 748

<210> 29  
 <211> 805  
 <212> DNA  
 <213> Homo sapiens

<400> 29	
aaaccgaggc	agagagctac gaggggctcc tggcaccatc gctgatccca aagaactggc 60
cagaccaagg	gaagatccag atccagaacc tgagcgtgcg ctacgacagc tccctgaagc 120
cgggtgctgaa	gcacgtcaat gccctcatct cccctggaca gaagatcggg atctgcggcc 180
gcaccggcag	tgggaagtcc tccttctctc ttgccttctt ccgcatgggtg gacacgttcg 240

```

aagggcacat catcattgat ggcattgaca tccgcaaact gccgctgcac accctgccgt 300
cacgcctctc catcatcctg caggaccccg tcctcttcag cggcaccatc cgatttaacc 360
tggaccctga gaggaagtgc tcagatagca cactgtggga ggccctggaa atcgcccagc 420
tgaagctggt ggtgaaggca ctgccaggag gcctcgatgc catcatcaca gaaggcgggg 480
agaatttcag ccagggacag aggcagctgt tctgcctggc ccgggccttc gtgaggaaga 540
ccagcatctt catcatggac gaggccacgg cttccattga catggccacg gaaaacatcc 600
tccaaaaggt ggtgatgaca gccttcgcag accgcactgt ggtcaccatc gcgcatcgag 660
tgcacaccat cctgagtga gacctggtga tcgtcctgaa gcggggtgcc atccttgagt 720
tcgataagcc agagaagctg ctccagccgga aggacagcgt cttcgccctc ttcgtccgtg 780
cagacaagtg acctgccaga gccca 805

```

```

<210> 30
<211> 782
<212> DNA
<213> Homo sapiens

```

```

<400> 30
tgggtgcagt gaagaagggt aacagtttcc tgactatgga gtcagagaac tatgaaggca 60
caatggatcc ttctcaagtt ccagaacatt ggccacaaga aggggagatc aagatacatg 120
atctgtgtgt cagatatgaa aataatctga aacctgttct taagcacgtc aaggcttaca 180
tcaaacctgg acaaaagggt ggcatatgtg gtcgcactgg cagtgggaaa tcatcgttat 240
ctctggcttt cttcagaatg gttgatatat ttgatggaaa aattgtcatt gatgggatag 300
acatttccaa attaccactg cacacactac gttctagact ttcaatcatt ctgcaggatc 360
caatactatt cagtggttcc attagattta atttagatcc agagtgcaaa tgcacagatg 420
acagactctg ggaagcctta gaaattgctc agctgaagaa tatggtcaaa tctctacctg 480
gaggtctaga tgcggttgct actgaagggt gggagaattt tagcgtggga cagagacagc 540
tattttgcct tgccagggcc tttgtccgca aaagcagcat tcttattatg gatgaggcaa 600
cagcttccat tgacatggcc acagagaata ttttgcaaaa agtagtaatg acagcctttg 660
cagaccggac cgtggtgaca atggctcacc gtgtctcttc tattatggat gcaggccttg 720
ttttagtctt ttctgagggt attttagtgg agtgtgatac tgtcccaaatt ttgttcgcc 780
ac 782

```

```

<210> 31
<211> 892
<212> DNA
<213> Homo sapiens

```



<400> 31  
 tcttccctgt tgttggtgct cttccggctg ctagagccca gttcagggcg agtgctgctg 60  
 gacggcgtgg acaccagcca gctggagctg gcccagctca gatcccagtt ggctatcatc 120  
 ccccaggagc cctttttgtt cagtgggact gttcgggaaa acctggaccc ccagggccta 180  
 cataaggaca gggccttggtg gcaggccctg aagcagtgcc acctgagtga ggtgattaca 240  
 tccatgggtg gtctggatgg tgagctgggt gaggggggccc ggagcttatc tcttgggcag 300  
 aggcagctgt tgtgtttggc cagggtcttc ctcacagatg ccaagatcct gtgtatcgat 360  
 gaggccacag caagtgtgga ccagaagaca gaccagctgc tccagcagac catctgcaaa 420  
 cgctttgcca acaagacagt gctgaccatt gcccataggc tcaacacgat cctgaactca 480  
 gaccgggtgc tggtgctaca agcggggaga gtggtagagc tggactcccc ggccaccctg 540  
 cgcaaccagc cccactccct gttccagcag ctgctgcaga gcagccagca gggagtcctt 600  
 gcctcactcg gaggtccctg agcccaatcc cacaccctgc agagtctcc cctctctctg 660  
 atccaggccg ggcctataca gaggtgctgg ctgcttgttt acattctcct ctggggctct 720  
 acctctccac acttccccag aagggaagagg ggcaccctgg attactcttt ggaaatcact 780  
 ccttggtggg cagcatcctg aggcttcccc agaaccaggc ctctgctctg gccctcttgc 840  
 atctggaacg ccagggtgggt ttttctggca taggagccca cttgcatttt ca 892

<210> 32  
 <211> 764  
 <212> DNA  
 <213> Homo sapiens

<400> 32  
 gattctcatt gacggcgtgg acatttgacg catcggcctg gaggacttgc ggtccaagct 60  
 ctcagtgatc cctcaagatc cagtgtgct ctcaggaacc atcagattca acctagatcc 120  
 ctttgaccgt cacactgacc agcagatctg ggatgccttg gagaggacat tcctgaccaa 180  
 ggccatctca aagttcccca aaaagctgca tacagatgtg gtggaaaacg gtggaaactt 240  
 ctctgtgggg gagaggcagc tgctctgcat tgccagggtc gtgcttcgca actccaagat 300  
 catccttatc gatgaagcca cagcctccat tgacatggag acagacaccc tgatccagcg 360  
 cacaatccgt gaagccttcc agggctgcac cgtgctcgtc attgccacc gtgtcaccac 420  
 tgtgtgaac tgtgaccaca tcctgggttat gggcaatggg aaggtggtag aatttgatcg 480  
 gccggaggta ctgcggaaga agcctgggtc attgttcgca gccctcatgg ccacagccac 540  
 ttcttcactg agataaggag atgtggagac ttcattggagg ctggcagctg agctcagagg 600  
 ttcacacagg tgcagcttcg aggccacag tctgcgacct tcttgtttgg agatgagaac 660

ttctcctgga agcaggggta aatgtagggg gggtagggat tgctggatgg aaaccctgga 720  
 ataggctact tgatggctct caagacctta gaacccca acca 764

<210> 33  
 <211> 790  
 <212> DNA  
 <213> Homo sapiens

<400> 33  
 ctggttatgg aaaatgggaa ggtgattgag tttgacaagc ctgaagtcct tgcagagaag 60  
 ccagattctg catttgcgat gttactagca gcagaagtca gattgtagag gtcctggcgg 120  
 ctgattctag aggaggaaga ggctctgtga gatgaatagg aggagtcttc aggaggaggg 180  
 gctgtcctct ccgcaggcag ccctgggtctt cagcccctcc catccacgga gtgagctggg 240  
 gctgaagttg tccccactgc catactcagt ccatgtcacc ccacttggtg ggcttggggg 300  
 tggttctggg tggtgaaccg gggcagaccc agctaattgga ttaaaaaact gcccttcacc 360  
 tcccaaatcc ccaagggttc ctcatgtgtt ttcacaaaaa ccaccccagt gcctgagatt 420  
 gaaaatattg taactttcag ttagaaatca gccacaataa acaacatggg aaaatgcctt 480  
 aggatggagt ttgcaagggt tccttgccca ttatcagaag gaaaaagagc agaattttct 540  
 tctcgtttaa cccactcac ttccatcttg actgggtgac aagtggtaat gacacagatt 600  
 tgtagcgtga aagactgaat acagtgtttg gccaaaaatt tttttaaaaa tcatattata 660  
 tgtttcaatt gatctgttag aataaccaag aaaacaaaat gctggagttt ctctataaat 720  
 gacactttta tatcttcttt attcgtcgtt aaaacgcggg aggaaattac cctgaaatgt 780  
 cgccttgcaa 790

<210> 34  
 <211> 787  
 <212> DNA  
 <213> Homo sapiens

<400> 34  
 gcacctgtgg gccatactaa aagatcccct acttacgttc tggttgatcat gtttccctgt 60  
 atttgataaa acacataatt ttgagaaaaa taaagtttta aatgtatcta tgtctcgact 120  
 tttctgatga agttatacca gaaaagttaa ttatttgatg ggcttgccat gtgaaaacca 180  
 gaaaataacc tcgtactcac aagccagtgg aagggtattcc tgattttact aaaaaaaaaa 240  
 aaaaaaaaaa agagggcggg gacaaatatc aaattaagca agtaaagaaa aagaacaggt 300  
 aagagtgtgt gtgtgtgtgt aacactttga caatactaaa ctctcataag catttaacac 360  
 ttcagatgtt taacatttct gcccttttct caatttttat gacgtgcagg caaattatca 420  
 ttttctgtga acacagctca gattttgggt ggaatggcta tggctatgca gtggcacttc 480

ttgttgtagt	ctttttgcaa	actctgattc	ttcagcaata	tcaacgtttt	aacatgctca	540
cctcagcaaa	agttaagaca	gctgtaaatg	gactgatcta	caaaaaggcc	ttacttttat	600
caaatgtttc	tcgacaaaag	ttttccactg	gggaaattat	taacttgatg	tcagcaactc	660
atggacttga	cagcaaacct	caatctcttc	tggtctgccc	cttttcaa	cctaattggc	720
gtatatctcc	tttggcaaga	gctgggtcca	gcagtgttag	caggggtggc	agtccttg	780
tttgta						787

<210> 35  
 <211> 488  
 <212> DNA  
 <213> Homo sapiens

<400> 35						
ttccctcctc	gtcagtctct	caaagacccc	atggtccatc	ccctgagggt	ggtcagccaa	60
ggctcccgtt	ccgtgggatg	ccataaaagc	cgcccagtgg	gaccacagt	cacacagagc	120
gcctcacctg	catcctctcc	cccacaagag	cccacaagat	cccacgggag	aggggagagg	180
gacgcacagc	actgcctgcc	aagcgagaat	gcaggccccg	ccccctcggc	ccctcaccac	240
ctctttctac	agcctaattt	attggattcc	ctattcgtag	ccatctccgt	ggccaatgtg	300
actaccgtgc	cagcagcggg	ggcggcccag	cctctgagtc	ccgtggggcc	ccggctccca	360
ccggtgccaa	accagcccc	tgcggcctgc	accccgccag	cctacactgc	cagccgccac	420
cggggcacac	gggcctctgc	ttgccagcca	ggagtgcgga	caccatgttc	ccagctcagt	480
gccaaaga						488

<210> 36  
 <211> 617  
 <212> DNA  
 <213> Homo sapiens

<400> 36						
gtggccaact	aaacctgtac	aaaatagctg	acagttttat	aactaatttc	aatataaaaa	60
ttgtttta	ggcatttg	gaaagaaaa	agcatggcta	aaatgtatca	aatgccatat	120
ttttaaat	tggacttta	gcatctta	gagggcatat	aacaaattaa	ttttagtaca	180
atcttaaata	tttttaata	atcctttcat	tttaaaaaga	gaattgccaa	tacagaaaag	240
gagtatccaa	acaatgtctc	aacctgataa	tttccttagc	agaattacct	attgcaactt	300
ctgttcagaa	atacacagct	tgtttttttg	cccaaggatg	agtctacatt	ttaagaactg	360
caatgggtata	aaggaactta	aggattctga	gaatcatagt	aataacatac	attggaatag	420
tactttataa	tttacaatcc	ccattttacat	cattttcacct	taatgttgag	gacaatgttt	480

tgaacaaaat actatTTTTtC ctacttttgct tttgagaaaa ttgacactca gacttgcCct 540  
aatcatgcac tttactttaag gaaagatcga gaaatcaaat gaagttctcc tgactctctg 600  
gttttagtgct cttttgt 617

<210> 37  
<211> 735  
<212> DNA  
<213> Homo sapiens

<400> 37  
tactcattcc ttgtgtgtgt cttggagtgc atttgactcc aggaaaagcc attttggttt 60  
tccttaacta aatgataaat gtaccCctct cagtctgcag tattgagttg tttaaagtat 120  
atgtgcagtc ttgcttaca ggaggggtta ccatgtatca cacctaattct tcccaatggt 180  
tgggatatta aaacacaaag tccttaacat gccaggctca aggtcttata agagttctag 240  
atTTttaaga gaattagaca aatttgtgtg tgttagaagc ccattcatta gaagtgtggt 300  
ggttatttgg tattaaactc caaatgagcc ataggaaggc actacatgaa ataatgcact 360  
gagtatgcaa tgctatcact gtctttgact gtgattttat gtttaaaaag tatgtttctaa 420  
aattattata tatacatggg tgaattatgt ttccgaggca ctgttttctc tctgtgaatc 480  
ttgaataact tttttatatt tgggttatga tgtcaaacga tcctaagcga agatgatttc 540  
agttcatcaa atcatcatta atgactttat gtattatttg cacagggaga attgaaactg 600  
agtataatca ataagctaga tacgaaatca gtttctcaaa ctgagcttca gaaaggggca 660  
ttttgtactc ttgtttttgc ataactggtt ttgttttttt gcagaattaa ctataacaat 720  
cactggctac cgaag 735

<210> 38  
<211> 673  
<212> DNA  
<213> Homo sapiens

<400> 38  
ctcccatatgc ttgaagtgtc gattacctac aaatgatttc agatcatggt tgctaaagag 60  
aaatctggaa gtgtgagatc tgtaagaaat gaaagaaatg actcttggag tcaagagatc 120  
tggaatctt ttaatcagtt aaattgtgca gcaatagatt tttacttta actgaccatt 180  
taagtTTTTt aataagTTTT ttacaaagaa aagttaaaca ttaaaaagaa ttacagcttt 240  
ctgtcttctc tatcatggaa tgattttttt tattgaatct ccagatttgt atttgacagc 300  
ttggtgggaa gggaagcaca ctctgctgtt ctggaatctt atgcccaggg tttttcactt 360  
ctccccacat ctccctttcc acttgccagt gttgtgtagt tagaacctga accactaact 420  
tctagggggc tttggtctgc cctaccttaa cccaaatgaa agtaaattcc tttccctta 480

gccccaaataa gggtggggttt tctaaaaaaa tagtctatat tagggaacaa caacagcaaa 540  
 ttagacaaaaa cccagaaagc acaaagcatg aggtggagtt actgtgcca aagtcctcac 600  
 tcagaccagt gccctccag ttcagttgtc tatgtattac cttccttacc ttcataatgt 660  
 ttgccaggct tct 673

<210> 39  
 <211> 756  
 <212> DNA  
 <213> Homo sapiens

<400> 39  
 attccccgca aaaaaccctt aactttactc tgaacttttt ttgtttttgc attccatgag 60  
 gttctgtatt cagtcattct ctaggtaatg tcatttttgt acacatatat ttatataatc 120  
 actgattgag atttaggaaa aagcatttct aaagaatatt tgcttccctt agaactacag 180  
 actcgaaatc tttaaagatg gtgcctaagc atctatgtat tttttttaag ttccacagat 240  
 ttttctgttg ggcaggccaa ggattataaa ccacttccct aaaggcaaca ttaatgcaaa 300  
 agtccccaga tggcaataca aagtatcccc tggtagcaca tatattcatt tgtgagtttg 360  
 gatatagagc acattatcta aaccattttg tagttccaaa aaccatcta aatttcttga 420  
 gttcctgaat tttgaacagg attacctgga gcctggagcc actttaagtt gtacttctga 480  
 ctaaactgga attatgagtg aggaagagtg tttactaaat aaatgactgg ggcaagcaaa 540  
 attgaggagg aaattagaaa ctgtttgaca aactttaaga gctacttgaa ataacagaag 600  
 tcttgattaa tatgcaaata atggctagaa agtatggttt aactggaccc tattatgcct 660  
 tttaaaaata atttcagtaa cccataaata catgttgtaa aaaattcaaa tatacagaat 720  
 ggaataaaaa aatgatctcc ctttattacc ctccca 756

<210> 40  
 <211> 591  
 <212> DNA  
 <213> Homo sapiens

<400> 40  
 ttggaggccc tgggtgaagt catggtcagc cggccccgag agtgaagctt tccttcccag 60  
 aagtctcccg agagacatat ttgtgtggcc tagaagtcct ctgtggtctc ccctcctctg 120  
 aagactgcct ctggcctgca gctgacctgg caaccattca ggcacatgaa ggtggagtgt 180  
 gaccttgatg tgaccgggat cccactctga ttgcatccat ttctctgaaa gacttgtttg 240  
 ttctgcttct cttcatataa ctgagctggc cttatccttg gcatccccct aaacaaacaa 300  
 gaggtgacca ccttattgtg aggttccatc cagccaagtt tatgtggcct attgtctcag 360

gactctcatc actcagaagc ctgcctctga tttaccctac agcttcaggc ccagctgccc 420  
 cccagtcttt ggggtggtgct gttcttttct ggtggattta atgctgactc actggtacaa 480  
 acagctgttg aagctcagag ctggagggtga gcttctgagg cctttgccat tatccagccc 540  
 aagatttggt gcctgcagcc tcttgtctgg ttgaggactt ggggcaggaa a 591

<210> 41  
 <211> 648  
 <212> DNA  
 <213> Homo sapiens

<400> 41  
 tgctaccag agatcaagga gaaggaagaa atgaggaaga tcattgggcg atacggtctc 60  
 actgggaaac aacaggtgag cccaatccgg aacttgctcag acgggcagaa gtgccgagtg 120  
 tgtctggcct ggctggcctg gcagaacccc cacatgctct tcctggatga accaccaat 180  
 cacctggata tcgagaccat cgacgcctg gcagatgcca tcaatgagtt tgaggggtgg 240  
 atgatgctgg tcagccatga cttcagactc attcagcagg ttgcacagga aatttgggtc 300  
 tgtgagaagc agacaatcac caagtggcct ggagacatcc tggcttaciaa ggagcacctc 360  
 aagtccaagc tgggtggatga ggagccccag ctcaccaaga ggaccacaa cgtgtgcacc 420  
 ctgacattgg catctctgcc aaggccatga gcatcatgaa ctcgtttgta aacgacgtgt 480  
 ttgagcagct ggcgtgtgag gctgcccggc tggcccagta ctcgggccgg accaccctga 540  
 catcccgaga agtccagacg gctgtgcgtc tgctgctgcc tggggagctg gccaagcacg 600  
 ctgtgtctga gggcaccaag gctgtcacca agtacaccag ctccaagt 648

<210> 42  
 <211> 719  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (45)..(45)  
 <223> n is a, c, g, or t

<220>  
 <221> misc\_feature  
 <222> (251)..(251)  
 <223> n is a, c, g, or t

<220>  
 <221> misc\_feature  
 <222> (255)..(255)  
 <223> n is a, c, g, or t

<220>  
 <221> misc\_feature

<222> (504)..(504)  
 <223> n is a, c, g, or t

<220>  
 <221> misc\_feature  
 <222> (513)..(513)  
 <223> n is a, c, g, or t

<220>  
 <221> misc\_feature  
 <222> (643)..(643)  
 <223> n is a, c, g, or t

<400> 42  
 cctaaacgtc agtgcttggt gaactgctgg cacgcaagtt tcctnggggc ggccctgagga 60  
 ggagtaccgt caccagctgg gtcgggtatgg catctccgga gaactggcca tgcgtcctct 120  
 tgccagcctg tctggggggcc agaagagccg agtggccttt gctcagatga ctattgccct 180  
 gcccacttc tacattctgg atgaaccac aaaccacctg gacatggaga ccattgaggc 240  
 tctggggcgt ngctncaaca atttcagggg tgggtgtgatt ctgggtgtccc acgatgagcg 300  
 ctttatcagg ctgggtgtgcc gggagttgtg ggtatgcgaa ggaggcggcg tcaccctgtg 360  
 ggaaggagga tttgaccagt accgcgccct cctccaggga acagttccgc cgcgaaggct 420  
 ttctctagg gccaccaggc tgaggactcg cccaggaca tggactggtc tctcagaccc 480  
 ctggggccacc atgtaggcca ccantcccag gcnttggtact tccccccaac ttggggacag 540  
 ccttattccc aaatgtctct atccttttga ctggagcatc ttctgcacaa ccttggggagc 600  
 ccatccaagg gttggtgagg actggtctcc cgggggtggg ggnttggggg gtacctctgg 660  
 gggtatagat tccccactg cccagctct gactggacct caagtggctg ctatgtaaa 719

<210> 43  
 <211> 602  
 <212> DNA  
 <213> Homo sapiens

<400> 43  
 cgtctagaat cgaggaggca agcctgtgcc cgaccgacga cacagagact cttctgatcc 60  
 aaccctaga accgcgttgg gtttgtgggt gtctcgtgct cagccactct gccagctgg 120  
 gttggatctt ctctccattc ccctttctag ctttaactag gaagatgtag gcagattggt 180  
 ggtttttttt ttttttttaa catacagaat tttaaatacc acaactgggg cagaatttaa 240  
 agctgcaaca cagctggtga tgagaggctt cctcagtcca gtcgctcctt agcaccaggc 300  
 accgtgggtc ctggatgggg aactgcaagc agcctctcag ctgatggctg cacagtcaga 360  
 tgtctggtgg cagagagtcc gagcatggag cgattccatt ttatgactgt tgtttttcac 420  
 attttcatct ttctaagggt tgtctctttt ccaatgagaa gtcatttttg caagccaaaa 480

gtcgatcaat cgcattcatt ttaagaaatt ataccttttt agtacttgct gaagaatgat 540  
 tcagggtaaa tcacatactt tgttttagaga ggcgaggggt ttaacccgag tcaccagct 600  
 gg 602

<210> 44  
 <211> 624  
 <212> DNA  
 <213> Homo sapiens

<400> 44  
 cagtacttca gcattccacg atatggattt acggctttgc agcataatga atttttggga 60  
 caaaacttct gcccaggact caatgcaaca ggaaacaatc cttgtaacta tgcaacatgt 120  
 actggcgaag aatatttggt aaagcagggc atcgatctct caccctgggg cttgtggaag 180  
 aatcacgtgg ccttggttg tatgattgtt attttctca caattgccta cctgaaattg 240  
 ttatttctta aaaaatattc tttaaatttc ccttaattca gtatgattta tcctcacata 300  
 aaaaagaagc actttgattg aagtattcaa tcaagttttt ttgttgtttt ctgttcctt 360  
 gccatcacac tggtgcacag cagcaattgt tttaaagaga tacattttta gaaatcacia 420  
 caaactgaat taaacatgaa agaaccaag acatcatgta tcgcatatta gttaatctcc 480  
 tcagacagta accatgggga agaaatctgg tctaatttat taatctaaaa aaggagaatt 540  
 gaattctgga aactcctgac aagttattac tgtctctggc atttgtttcc tcacttttaa 600  
 aatgaatagg taggttagta gccc 624

<210> 45  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 45  
 acaggcacat acatgagaac aggccatctc agccctacac acttgccatc ccctacagca 60  
 cagaggaaga gtgatggtgg catgctggtg gtggcgggtg ctggtgggag gacagtgcca 120  
 acctcctcct ggggatccca tggtggagac tctaaggata aggctggtgc tgcccagggt 180  
 gtctacagga actgcagggt tctaccccca agtcttccct cctcccaagc caggggtggc 240  
 acagggcact agatccctgg agttcaggaa ccaacacaag cacaaccacg ggcataagtt 300  
 ggccttggtc actgccacc acggccctcc ttttggtgctc catgctggca tcttcaactcc 360  
 cctaccctt cccagccac tgctgctcat tcaaacttct gtccatgtcc ctccactgtt 420  
 cctatcagca ggtggccctt gggcatcaga acagcctgcc ctgggcacca ggtggcagac 480  
 aactcagag catgtctggc tttcctggtg ggtccaggct cattctgctt ctgatttccc 540  
 ctccccagg gctcattttc cccctttttc ctgtacacat ccctg 585



<210> 46  
 <211> 637  
 <212> DNA  
 <213> Homo sapiens

<400> 46  
 gccacaggtgc aacatctaga ttcacaatga actttctgat tttgtattca tttattccag 60  
 ctcttgatcat cctaggaata gttgttttca aaataagggg tcatctcatt agcaggtagt 120  
 gaaagccatg gctgggaaaa tggaagtga gctgccgact gtgcatgact gctctgaacg 180  
 tctgaaatga gagtgccatg tatttctttc ttgacaggac atctcaagtc ttttaacctat 240  
 taagactcca tttgtgcctc ttggatccaa gcaggccttg aatgcaatgg aagtgggtta 300  
 tagtcccttg ctcttacaac ttgcaggggac atgtgggttat ttggaaattg tgactgagcg 360  
 gacccaagaa tgtaaataat attcataaac ctatgggaga ctctgtgtgac tatttttttt 420  
 ccttggttcta ggcacagaaa aaaatagggtc agcttaaaaa tatgtttaca ttggataaag 480  
 gattaggcaa aaataaaatg tttcaaggat tcctgaccat aagtgcacaga gaaagagagt 540  
 tgtgggttta gatgaagcaa gggtatcatg cagaattggg taagaatgct tctgttcctg 600  
 gaagaccag agttaaattg agatgtccac acgaggg 637

<210> 47  
 <211> 698  
 <212> DNA  
 <213> Homo sapiens

<400> 47  
 tcaatgacca tcggcttctt ctattttggc catgggagca tccagctctc cttcatggat 60  
 acagccgccc tcttggtcat gatcgggtgt ctcatccctt tcaacgtcat tctggatgtc 120  
 atctccaaat gttactcaga gagggcaatg ctttactatg aactggaaga cgggctgtac 180  
 accactgggtc catatttctt tgccaagatc ctcggggagc ttccggagca ctgtgcctac 240  
 atcatcatct acgggatgcc cacctactgg ctggccaacc tgaggccagg cctccagccc 300  
 ttctgtctgc acttctgtct ggtgtggctg gtggtcttct gttgcaggat tatggccctg 360  
 gccgcccggg ccctgtctcc caccttccac atggcctcct tcttcagcaa tgccctctac 420  
 aactccttct acctcgccgg gggcttcatg ataaacttga gcagcctgtg gacagtgcgc 480  
 gcgtggattt ccaaagtgtc cttctgtcgg tgggtgtttg aagggtgat gaagattcag 540  
 ttcagcagaa gaacttataa aatgcctctc gggaacctca ccatcgcggt ctcaggagat 600  
 aaaatcctca gtgtcatgga gctggactcg taccctctct acgcatcta cctcatcgtc 660  
 attggcctca gcggtggctt catgggtcctg tactacgt 698

<210> 48  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 48  
 ccctgtggaa tgtacctatg tgag

24

<210> 49  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 49  
 gcgtaaagtg cttggaatga gggc

24

<210> 50  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 50  
 ccttcaacac ggacacgctc tgct

24

<210> 51  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 51  
 agcttctcca ttctgccac ctgc

24

<210> 52  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 52  
 aaggaaaagt acggcgtgga cgac

24

<210> 53  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 53  
 ctaagacccc agcacctaata caca

24

<210> 54  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 54  
 gagcatcatc agaaaaggga gggc

24

<210> 55  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 55  
 ggggtttctag ttctgggggc tgga

24

<210> 56  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 56  
 aatgcaagcc gtcaggaaag tttt

24

<210> 57  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 57  
 cttacacttc agcttttacg gatg

24

<210> 58

<211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 58  
 agttgtgttt tgtgctgagc ctcc

24

<210> 59  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 59  
 gtgcctgact ctttgggtga cttt

24

<210> 60  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 60  
 atagcatgga ggagtgtgaa gcgc

24

<210> 61  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 61  
 tttcaccacc acggcttctc tcca

24

<210> 62  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 62  
 gctgggtgat tttgaggagg attt

24

<210> 63  
 <211> 24

<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 63  
 gaaaatggca cacagttggc ttac

24

<210> 64  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 64  
 tgtgccagca accaaatccc atgt

24

<210> 65  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 65  
 tttctcctaa tgctatccct cccc

24

<210> 66  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 66  
 aggagctggg aaatgttgat gata

24

<210> 67  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 67  
 gccatttcac cagtttatca gacc

24

<210> 68  
 <211> 24  
 <212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 68

cctgctggag agtgttttgg gctt

24

<210> 69

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 69

atgtttgcga ctcctcctgc tgtg

24

<210> 70

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 70

catcctgttt gactgcagca ttgc

24

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 71

gcaaggcagt cagttacagt ccaa

24

<210> 72

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 72

atattgccta tggcctgacc caga

24

<210> 73

<211> 24

<212> DNA

<213> Artificial Sequence

<220>  
 <223> primer  
  
 <400> 73  
 ttctcagttt cagagtgctg gccca 24  
  
 <210> 74  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 74  
 gggagtagga gctatgctaa gtgt 24  
  
 <210> 75  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 75  
 tgctcatggt ctagtggaag gtca 24  
  
 <210> 76  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 76  
 ttgacagcta cagtgaagag gggc 24  
  
 <210> 77  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 77  
 cataagttct gtgtcccagc ctgg 24  
  
 <210> 78  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer  
  
 <400> 78  
 ttcgcttcta cgacatcagc tctg 24  
  
 <210> 79  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 79  
 gaccaggatg aaataagcca gggg 24  
  
 <210> 80  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 80  
 ccctgcagga aagaaagtgg ccat 24  
  
 <210> 81  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 81  
 cttagcacga acagtttcca cagc 24  
  
 <210> 82  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 82  
 aggttgctcg tttcatcagc cagg 24  
  
 <210> 83  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>



<223> primer

<400> 83

tttattgtga gcaggagcag ccgc

24

<210> 84

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 84

tggatcacccg cttcctgcat cttg

24

<210> 85

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 85

tgccaccatc ccatccacca aaga

24

<210> 86

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 86

gcaaggcatg aactgctagg tatt

24

<210> 87

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 87

ggttttcttct tccagtctaa tcag

24

<210> 88

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 88  
ttgtcattgc ccatcgcttg tcca 24

<210> 89  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 89  
agagcatcca ccctttccct atcc 24

<210> 90  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 90  
gctcccatca cctctaacad cctt 24

<210> 91  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 91  
tgagcaggta ccatgagagg gaaa 24

<210> 92  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 92  
gtagcatgga gaagattggt gtgg 24

<210> 93  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 93  
 gggtagtagg ttcatgggtg ttca 24

<210> 94  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 94  
 caagagccgc atcctgggtt taga 24

<210> 95  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 95  
 tttaatggat tcaggcagca cccc 24

<210> 96  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 96  
 tgggaagaac cggagctgga aaaa 24

<210> 97  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 97  
 aatgccttcg gaacggactt gaca 24

<210> 98  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 98

aaggaagacg tgtggcaata gtgg

24

<210> 99  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 99  
 aaaccacaca gcaaccagca acct

24

<210> 100  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 100  
 tcgtgtcagt ggagcggatg cagg

24

<210> 101  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 101  
 ctgccacctg ccccttgtcc atga

24

<210> 102  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 102  
 tctttcacag gggacaggat gggt

24

<210> 103  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 103  
 cagtttgag ttgagaaggc agtg

24

<210> 104  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 104  
 aaaccgaggc agagagctac gagg

24

<210> 105  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 105  
 tgggctctgg caggtcactt gtct

24

<210> 106  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 106  
 tgggtgcagt gaagaagggtg aaca

24

<210> 107  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 107  
 gtgggccaac aaatttggga cagt

24

<210> 108  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 108  
 tcttccctgt tggttggtgct cttc

24

<210> 109  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 109  
 tgaaaatgca agtgggctcc tatg

24

<210> 110  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 110  
 gattctcatt gacggcgtgg acat

24

<210> 111  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 111  
 tggttctggg gttctaaggt cttg

24

<210> 112  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 112  
 ctggttatgg aaaatgggaa ggtg

24

<210> 113  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 113  
 ttgcaaggcg acatttcagg gtaa

24

<210> 114  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 114  
 gcacctgtgg gccatactaa aaga

24

<210> 115  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 115  
 taacaaacac aaggactgcc accc

24

<210> 116  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 116  
 ttccctcctc gtcagtctct caaa

24

<210> 117  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 117  
 tctttggcac tgagctggga acat

24

<210> 118  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 118  
 gtggccaact aaacctgtac aaaa

24

<210> 119

<211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 119  
 acaaaagagc actaaaccag agag

24

<210> 120  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 120  
 tactcattcc ttgtgtgtgt cttg

24

<210> 121  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 121  
 cttcggtagc cagtgattgt tata

24

<210> 122  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 122  
 ctccatatgc ttgaagtgt gatt

24

<210> 123  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 123  
 agaagcctgg caaacattat gaag

24

<210> 124  
 <211> 24



<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 124  
 attccccgca aaaaaccct aact

24

<210> 125  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 125  
 tgggagggtg ataaaggag atca

24

<210> 126  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 126  
 ttggaggccc tgggtgaagt catg

24

<210> 127  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 127  
 tttcctgccc caagtcctca acca

24

<210> 128  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer

<400> 128  
 tgctaccag agatcaagga gaag

24

<210> 129  
 <211> 24  
 <212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 129

acttgagct ggtgtacttg gtga

24

<210> 130

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 130

cctaaacgtc agtgcttgtg gaac

24

<210> 131

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 131

tttacatagc agccacttgg ggtc

24

<210> 132

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 132

cgtctagaat cgaggaggca agcc

24

<210> 133

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 133

ccagctgggt gactcgggtt aaac

24

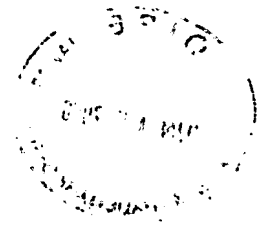
<210> 134

<211> 24

<212> DNA

<213> Artificial Sequence

<220>  
 <223> primer  
  
 <400> 134  
 cagtacttca gcattccacg atat 24  
  
 <210> 135  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 135  
 gggctactaa cctacctatt catt 24  
  
 <210> 136  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 136  
 acaggcacat acatgagaac aggc 24  
  
 <210> 137  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 137  
 cagggatgtg tacaggaaaa aggg 24  
  
 <210> 138  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 138  
 gcccaggtgc aacatctaga ttca 24  
  
 <210> 139  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence



<220>

<223> primer

<400> 139

ccctcgtgtg gacatctgca tttta

24

<210> 140

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 140

tcaatgacca tcggcttcct ctat

24

<210> 141

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 141

acgtagtaca ggaccatgaa gccca

24